AFGHAN NATIONAL POLICE

STANDARD BUILDING DESIGNS

ENTRY CONTROL POINT CANOPY

SHEET INDEX

US Army Corps of Engineers
Afghanistan Engineer District

SYMBOL	DESCRIPTION	DATE	APP'D

DESIGNED BY: JDS
DWN BY: JDS
CHK BY: JDS
DATE: 09-30-09
SUBMITTED BY: BAKER
FILE NO.: ANPSDG-001XXX

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AFGHAN NATIONAL POLICE
STANDARD DESIGN
ENTRY CONTROL POINT CANOPY

COVER SHEET

SHEET REFERENCE NUMBER:
G1

100% SUBMISSION

STRUCTURAL ABBREVIATIONS:

ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
ARCH	ARCHITECTURAL
B	BOTTOM
BLDG	BUILDING
BOTT	BOTTOM
℄	CENTER LINE
CFMF	COLD FORM METAL FRAME
CFS	COLD FORMED STEEL
CIP	CAST IN PLACE
CIPL	CAST-IN-PLACE LINTEL
CJ	CONTROL JOINT
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COEFF	COEFFICIENT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
COORD	COORDINATE
CSJ	CONSTRUCTION JOINT
CTJ	CONTROL JOINT
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DWG	DRAWING
DWL	DOWEL
EA	EACH
ELEC	ELECTRICAL
ELEV	ELEVATION
EMBED	EMBEDMENT
EQUIV	EQUIVALENT
ETC	ET CETERA
E.W.	EACH WAY
EXT	EXTERIOR
FTG	FOOTING
GA	GAUGE
HORIZ	HORIZONTAL
HRS	HOURS
IBC	INTERNATIONAL BUILDING CODE
INT	INTERIOR
Kg	KILOGRAM
KIP	KIPS (1 KIP = 1,000 POUNDS)
kN	KILONEWTON
kPa	KILOPASCAL
L#	ANGLE (# INDICATES SIZE)
LLV	LONG LEG VERTICAL
M	METER
MAX	MAXIMUM
MBM	METAL BUILDING MANUFACTURER
MBMA	METAL BUILDING MANUFACTURERS ASSOCIATION
MECH	MECHANICAL
MFG	MANUFACTURER
MID	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MM	MILLIMETER
MPa	MEGAPASCAL
MTL	METAL
MWFRS	MAIN WIND FORCE RESISTING SYSTEM
N	NEWTON
N	NORTH
N/A	NOT APPLICABLE
#	NUMBER SYMBOL FOR REBAR SIZE
NTS	NOT TO SCALE
O.C.	ON CENTER
OPNG	OPENING
ℙ or PL	PLATE
PRE-ENG	PRE-ENGINEERED
REINF	REINFORCED
REQ'D	REQUIRED
SIM	SIMILAR
SPECS	SPECIFICATIONS
STD	STANDARD
STRUCT	STRUCTURAL
T	TOP
T/	TOP OF
T/ELEV	TOP ELEVATION
T&B	TOP AND BOTTOM
THK	THICK
TM	TRADE MARK
TYP	TYPICAL
UFC	UNIFIED FACILITIES CRITERIA
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
W	WIDTH
W/	WITH

GENERAL NOTES

1.0 THIS PROJECT HAS BEEN DESIGNED FOR THE WEIGHTS AND MATERIALS INDICATED ON THE DRAWINGS AND FOR THE LIVE LOADS INDICATED IN THE DESIGN DATA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALLOWABLE CONSTRUCTION LOADS AND TO PROVIDE PROPER DESIGN AND CONSTRUCTION OF FALSEWORK, FORMWORK, STAGING, BRACING, SHEETING AND SHORING, ETC.

1.1 COORDINATE THESE DRAWINGS WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND CIVIL DRAWINGS. ALL DIMENSIONS SHOWN ON THE DRAWINGS ARE MILLIMETERS UNLESS NOTED OTHERWISE.

1.2 THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL FLOOR AND ROOF OPENING SIZES AND LOCATIONS, EQUIPMENT PAD SIZES AND LOCATIONS, ANCHOR BOLT LAYOUTS, ETC WITH EQUIPMENT SELECTED. THE CONTRACTOR SHALL MAKE ANY REQUIRED MODIFICATIONS AT NO ADDITIONAL COST.

1.3 THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR SLEEVES, CURBS, INSERTS OR OPENINGS, ETC. NOT HEREIN INDICATED.

1.4 NOT USED

1.5 SLAB OPENINGS SMALLER THAN 250mm DIA TO BE CORE DRILLED IN FIELD UNO. SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR LOCATIONS OF THESE OPENINGS.

1.6 WORK NOT INCLUDED ON THE DRAWINGS BUT IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES ELSEWHERE ON THE DRAWINGS SHALL BE REPEATED.

1.7 IN CASE OF CONFLICT BETWEEN THE NOTES, DETAILS AND SPECIFICATIONS THE MOST RIGID REQUIREMENTS SHALL GOVERN.

1.8 COORDINATE FINISHED FLOOR DATUM ELEVATION 0.0m WITH THE CIVIL DRAWINGS.

2.0 FOUNDATION NOTES

2.1 THE GEOTECHNICAL ANALYSIS FOR THIS PROJECT IS THE RESPONSIBILITY OF THE CONTRACTOR AWARDED THE WORK. DESIGN VALUES USED IN THE STRUCTURAL ANALYSIS OF THE BUILDINGS HEREIN INDICATED HAVE BEEN ASSUMED AND SHALL BE CONFIRMED AND VERIFIED AS PART OF THE GEOTECHNICAL INVESTIGATION. VALUES WHICH DO NOT MEET THE REQUIREMENTS INDICATED ON THE BASIS OF DESIGN SHEET SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER-OF-RECORD FOR CONSIDERATION AND DETERMINATION ON THE NEXT APPROPRIATE COURSE OF ACTION.

2.2 SEE THE SPECIFICATION FOR ADDITIONAL REQUIREMENTS TO THOSE OUTLINED IN THE GEOTECHNICAL INVESTIGATION FOR EXCAVATION AND PREPARATION OF THE FOUNDATION AND THE SLAB ON GRADE SUBGRADE INCLUDING COMPACTION PROCEDURES.

2.3 EXCAVATIONS FOR FOOTINGS SHALL HAVE THE SIDES AND BOTTOMS TEMPORARILY LINED WITH 0.15mm POLYETHYLENE IF PLACEMENT OF CONCRETE DOES NOT OCCUR WITHIN 24 HRS OF THE EXCAVATION OF THE FOOTING.

2.4 FOUNDATION CONDITIONS NOTED DURING CONSTRUCTION WHICH DIFFER FROM THOSE DESCRIBED IN THE GEOTECHNICAL REPORT SHALL BE REPORTED TO THE GENERAL CONTRACTOR BEFORE FURTHER CONSTRUCTION IS ATTEMPTED. SEE PROJECT SPECIFICATIONS.

2.5 NO FOOTINGS OR SLABS SHALL BE POURED INTO OR AGAINST SUBGRADE CONTAINING FREE WATER, FROST, ICE OR LOOSE MATERIAL. FROST DEPTH ASSUMED TO BE 800MM

2.6 ALL SLAB-ON-GRADE, TRENCH BOTTOMS AND OTHER ON-GRADE INTERIOR HORIZONTAL SURFACES SHALL BE PLACED OVER A 0.15mm VAPOR BARRIER OVER A 100mm #57 STONE WATER BARRIER PLACED ON SUBGRADE PROPERLY PREPARED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. (UNO)

2.7 SEE PLUMBING, ELECTRICAL & CIVIL DRAWINGS FOR REQUIRED UNDERSLAB UTILITIES.

2.8 SEE ARCHITECTURAL DRAWINGS FOR ALL WATERPROOFING DETAILS AND MATERIALS.

2.9 IF UNDERMINING OF FOOTINGS OCCURS, FILL VOIDS WITH 15MPa CONCRETE. DO NOT ATTEMPT TO REPLACE AND RECOMPACT SOIL.

3.0 CONCRETE

3.1 CONCRETE SHALL HAVE THE UNIT WEIGHT AND THE MINIMUM COMPRESSIVE STRENGTHS (f'c) AT 28 DAYS AS SHOWN IN THE CONCRETE MATERIALS SCHEDULE ON THE BASIS OF DESIGN SHEET. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. ENTRAIN AIR TO PRODUCE TOTAL AIR CONTENT ACCORDING TO THE SPECIFICATIONS FOR CONCRETE EXPOSED TO FREEZING TEMPERATURES (EXTERIOR FOOTINGS, SLAB TURNDOWNS, EXTERIOR SLABS AND SLABS-ON-GRADE, EXTERIOR RETAINING WALLS, AND EXTERIOR GRADE BEAMS.)

3.2 GROUT FOR BASE PLATES SHALL BE NON-SHRINKABLE GROUT AND SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH AT 28 DAYS OF 35MPa, UNLESS NOTED OTHERWISE.

3.3 NO CALCIUM CHLORIDE SHALL BE USED IN ANY CONCRETE.

3.4 MIXING, TRANSPORTING AND PLACING OF CONCRETE SHALL CONFORM TO AC1-301-89

3.5 ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN CONCRETE INSTITUTE (ACI) 318M MANUAL (metric), "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", AND REQUIREMENTS OUTLINED IN THE CONTRACT SPECIFICATIONS. WHEN THERE IS A CONFLICT BETWEEN ACI AND THE SPECIFICATIONS, THE MORE STRINGENT SHALL GOVERN.

3.6 CHAMFER ALL EXPOSED EXTERNAL CORNERS OF CONCRETE WITH 20mm x45 DEGREE CHAMFER UNO.

3.7 CONCRETE REINFORCEMENT BARS SHALL CONFORM TO ASTM A615M-96a, GRADE 60, REINFORCING BARS SHALL NOT BE TACK WELDED, WELDED, HEATED OR CUT, UNLESS INDICATED ON THE CONTRACT DOCUMENTS. ALL LAP SPLICES SHALL BE CLASS "B" U.N.O.

3.8 HORIZONTAL FOOTING AND HORIZONTAL WALL REINFORCEMENT SHALL BE CONTINUOUS AND SHALL HAVE 90 DEGREE BENDS AND EXTENSIONS, OR CORNER BARS OF EQUIVALENT SIZE LAPPED WITH A CLASS B TENSION SPLICE AT CORNERS AND INTERSECTIONS. TOP BAR CRITERIA SHALL APPLY IF 300mm OR MORE OF FRESH CONCRETE IS PLACED BELOW BAR.

3.9 SLABS-ON-GRADE SHALL HAVE CONSTRUCTION JOINTS OR CRACK CONTROL JOINTS AS SHOWN ON THE DRAWINGS. CONSTRUCTION JOINTS CAN BE USED AT CONTROL JOINT LOCATIONS AT CONTRACTORS OPTION. SEE SLAB PLANS & JOINT DETAILS FOR ADDITIONAL INFORMATION. FOR AREAS NOT SHOWN ON DWGS, THE MAXIMUM SPACING OF CONSTRUCTION / CRACK CONTROL JOINTS SHALL BE 4800 mm

3.10 ALL CONCRETE REINFORCEMENT SHALL BE DETAILED, FABRICATED, LABELED, SUPPORTED, AND SPACED IN FORMS AND SECURED IN PLACE IN ACCORDANCE WITH THE PROCEDURES AND REQUIREMENTS OUTLINED IN THE LATEST EDITION OF THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318, AND THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315, LATEST EDITION.

3.11 SHOP DRAWINGS SHOWING REINFORCING DETAILS, INCLUDING STEEL SIZES, SPACING AND PLACEMENT, SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION.

3.12 NOT USED.

3.13 ALL DOWELS SHALL MATCH SIZE AND NUMBER OF MAIN REINFORCING, UNLESS NOTED OTHERWISE ON DRAWINGS.

3.14 ADDITIONAL BARS SHALL BE PROVIDED AROUND ALL FLOOR AND WALL OPENINGS AS SHOWN ON THE DWGS.

3.15 SEE ARCHITECTURAL DRAWINGS FOR TYPE AND LOCATION OF ALL FLOOR FINISHES.

3.16 THE CONTRACTOR SHALL COORDINATE ADDITIONAL WALL/SLAB OPENINGS NOT SHOWN ON STRUCTURAL DRAWINGS. SEE MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL DRAWINGS.

3.17 UNLESS NOTED OTHERWISE, ALL CURBS SHALL BE REINFORCED WITH AT LEAST (1) #13 CONTINUOUS AND #13 AT 300mm OC DOWELS TO STRUCTURE BELOW.

3.18 THE SUB-CONTRACTOR SHALL VERIFY ALL OPENINGS, PAD SIZES, AND ANCHOR BOLTS WITH EQUIPMENT SELECTED.

3.19 FOR ALL WALLS & PIERS, PROVIDE DOWELS INTO FOOTING AT EACH VERT REINF BAR, U.N.O. DOWEL SIZE SHALL BE SAME AS VERT REINF.

3.20 ALL DEFORMED BAR ANCHORS SHALL BE TRS NELSON DIVISION OR EQUAL 15mm DIA (UNO) CONFORMING TO ASTM A-496M WITH A MINIMUM TENSILE STRENGTH OF 550 MPa. ANCHOR DIMENSIONS SHALL BE IN ACCORDANCE WITH ASTM D-19. INSTALL ANCHORS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS BY AUTOMATIC ND WELDING AS INDICATED ON THE DRAWINGS. NO UNAUTHORIZED OR FIELD WELDING SHALL BE MADE WITHOUT AUTHORIZATION FROM THE MANUFACTURER.

3.21 ALL REINFORCING INDICATED TO BE WELDED SHALL BE IN ACCORDANCE WITH ASTM A706M. "LOW ALLOY STEEL DEFORMED BARS FOR CONCRETE REINFORCEMENT". ANY INSTALLATIONS USING MANUFACTURER'S EQUIPMENT SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

3.22 PROVIDE CONCRETE POUR STOPS OR FORMED AS REQUIRED FOR INSTALLATION OF ALL CONCRETE WORK.

3.23 PROVIDE ADDITIONAL 2-#13 x 600mm REINFORCING BARS IN SLAB-ON GRADE AT ALL RE-ENTRANT CORNERS. PLACE BARS AT MID-DEPTH OF SLAB WITH A CLEARANCE OF 50mm FROM CORNER UNO.

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STRUCTURAL GENERAL NOTES

SHEET REFERENCE NUMBER:
S1

100% SUBMISSION

STRUCTURAL DESIGN CRITERIA

ALL DESIGNS SHALL CONFORM TO THE PROVISIONS OF THE IBC 2006 AND UFC 4-010-01 AS APPLICABLE

1.0 DESIGN LOADS

1.1 DEAD LOADS

1.1.2 ROOF DEAD LOADS – PRE-ENGINEERED FRAMING

	MAXIMUM GRAVITY LOAD	MINIMUM GRAVITY LOAD
STEEL FRAMING	0.20 KPa	0.15 KPa
METAL DECKING/ROOFING	0.14 KPa	0.05 KPa
MECH / ELEC / PLUMBING	0.15 KPa	0.10 KPa
METAL PANEL CEILING	0.15 KPa	0.15 KPa
MISC	0.40 KPa	0.00 KPa
	1.00 KPa	0.45 KPa

1.3 LIVE LOADS (PER IBC 2006)

1.3.1 ROOF LIVE LOADS: ALL BUILDINGS

GREATER OF 1.0 KPa MINIMUM OR SNOW LOAD

1.3.3 SLAB-ON-GRADE LIVE LOADS

ALL BUILDINGS 4.80 KPa

1.4 SNOW LOADS (PER IBC 2006)

1.3.1 DESIGN PARAMETERS

GROUND SNOW LOAD (per UFC 3-310-01)	PER LOCAL CONDITION
SNOW IMPORTANCE FACTOR	1.0 KPa
SNOW EXPOSURE FACTOR	1.0 KPa

1.5 SEISMIC LOADS (PER IBC 2006 & TM 5-809-10)

1.5.2 SEISMIC PARAMETERS – PRE-ENGINEERED BUILDINGS

SEISMIC OCCUPANCY CATEGORY	II
SEISMIC IMPORTANCE FACTOR (I)	1.0
SEISMIC SITE CLASS	D
Ss	1.28
S1	0.51
Sds	0.853
Sd1	0.510
SEISMIC DESIGN CATEGORY	D
SEISMIC RESISTING SYSTEM	MOMENT RESISTING FRAME INTERMEDIATE STEEL MOMENT FRAMES
RESPONSE MODIFICATION FACTOR (R)	3.5
SEISMIC ANALYTICAL PROCEDURE	EQUIV LATERAL FORCE

1.6 WIND LOADS (PER IBC 2006)

1.6.1 DESIGN PARAMETERS

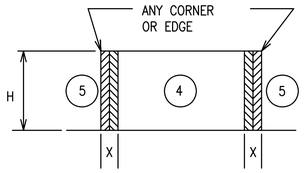
BASIC WIND SPEED	145 Km/h
WIND IMPORTANCE FACTOR	1.0
WIND EXPOSURE CATEGORY	D
DIRECTIONALITY COEFFICIENT (Kd)	0.85
TOPOGRAPHIC FACTOR (Kzt)	1.0

1.6.2 DESIGN WIND PRESSURE – MAIN WINDFORCE RESISTING SYSTEM

LOCATION	CORNER ZONE WIDTH "a"	WINDWARD (@ MEAN ROOF HEIGHT)	LEEWARD (@ MEAN ROOF HEIGHT)	ROOF
FIELD ZONE	N/A	964 N/m^2	-604 N/m^2	-1340 N/m^2
CORNER ZONE	1440mm	1127 N/m^2	-588 N/m^2	-1355 N/m^2

1.6.3 DESIGN WIND PRESSURE – WALL COMPONENTS AND CLADDING

EXTERIOR WALL SYSTEMS & THEIR ATTACHMENTS TO THE PRIMARY STRUCTURE SHALL BE DESIGNED FOR THE PRESSURES SHOWN IN THE DIAGRAM BELOW:

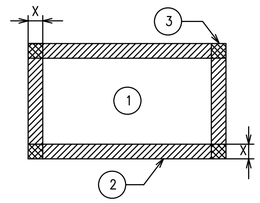


LOCATION	WINDWARD PRESSURE N/m^2 (inward)		LEEWARD PRESSURE N/m^2 (outward)		X
	(4)	(5)	(4)	(5)	
MAIN BUILDING					(mm)
AREA = 1 m^2	1513	1513	-1634	-2017	1440
AREA = 2 m^2	1438	1438	-1567	1859	1440
AREA = 5 m^2	1345	1345	-1469	-1691	1440
AREA = 10 m^2	1246	1246	-1370	-1444	1400

NOTES:
1. DESIGN WIND PRESSURES ABOVE REPRESENT THE NET PRESSURE (SUM OF INTERNAL AND EXTERNAL PRESSURE) APPLIED NORMAL TO ALL SURFACES.
2. LINEAR INTERPOLATION BETWEEN VALUES OF TRIBUTARY AREA IS PERMISSIBLE.
3. PLUS AND MINUS SIGNS SIGNIFY PRESSURE TOWARD AND AWAY FROM THE EXTERIOR SURFACE, RESPECTIVELY.

1.6.4 DESIGN WIND PRESSURE – ROOF COMPONENTS AND CLADDING

ROOF COMPONENTS & THEIR ATTACHMENTS SHALL BE DESIGNED FOR THE PRESSURES SHOWN IN THE ADJACENT DIAGRAM & TABLE BELOW:



ROOF MEAN HEIGHT

LOCATION	GROSS UPLIFT PRESSURE N/m^2 (upward)			X
	(1)	(2)	(3)	
MAIN BUILDING				(mm)
AREA = 1 m^2	-1513	-1790	-3342	-1440
AREA = 2 m^2	-1513	-1790	-3342	-1440
AREA = 5 m^2	-1513	-1790	-3342	-1440
AREA = 10 m^2	-1513	-1790	-3342	-1440

NOTES:
1. DESIGN WIND PRESSURES ABOVE REPRESENT THE NET PRESSURE (SUM OF INTERNAL AND EXTERNAL PRESSURE) APPLIED NORMAL TO ALL SURFACES.
2. LINEAR INTERPOLATION BETWEEN VALUES OF TRIBUTARY AREA IS PERMISSIBLE.
3. PLUS AND MINUS SIGNS SIGNIFY PRESSURE TOWARD AND AWAY FROM THE EXTERIOR SURFACE, RESPECTIVELY.

STRUCTURAL DESIGN CRITERIA

2.0 FOUNDATION DESIGN CRITERIA (TO BE CONFIRMED BT THE CONTRACTOR)

THE GEOTECHNICAL ANALYSIS FOR THIS PROJECT IS THE RESPONSIBILITY OF THE CONTRACTOR AWARDED THE WORK. DESIGN VAULUES USED IN THE STRUCTURAL ANALYSIS OF THE BUILDINGS HEREIN INDICATED HAVE BEEN ASSUMED AND SHALL BE CONFIRMED AND VERIFIED AS PART OF THE GEOTECHNICAL INVESTIGATION. VAULES WHICH DO NOT MEET THE REQUIREMENTS INDICATED BELOW SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER-OF-RECORD FOR CONSIDERATION AND DETERMINATION ON THE NEXT APPROPRIATE COURSE OF ACTION.

2.1.1 SOIL DESIGN PARAMETERS

NET ALLOWABLE SOIL BEARING CAPACITY	96.0 KPa
UNIT WEIGHT OF SOIL (moist)	1800 Kg/m^3
COEFF ACTIVE EARTH PRESSURE (Kpa)	0.30
COEFF PASSIVE EARTH PRERSSURE (Kpp)	3.33
COEFF AT-REST EARTH PRESSURE (Kpr)	.55
COEFF OF SOIL FRICTION	.35
SUBGRADE MODULUS	4120 g/m^3
MINIMUM BEARING DEPTH BELOW GRADE	800mm
SEISMIC SITE CLASS (based on in-situ soil)	0

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STRUCTURAL BASIS OF DESIGN

SHEET REFERENCE NUMBER:
S2

100% SUBMISSION

MINIMUM LAP SPLICES OF REINFORCING BARS IN TENSION (PER ACI 318)					
f'c = 27.5MPa CONCRETE					
BAR SIZE / CENTER TO CENTER BAR SPACING	(---TOP BARS--)		(--OTHER BARS--)		
	LESS THAN 4db	4db OR MORE	LESS THAN 4db	4db OR MORE	4db
#10	460	460	410	410	40
#13	660	610	510	480	50
#16	1020	760	790	580	60
#19	1450	910	1120	710	80
#22	1960	1090	1500	840	90
#25	2590	1450	1980	1120	100
#29	3280	1830	2510	1420	110
#32	4140	2340	3200	1780	130
#36	5080	2840	3910	2180	140

NOTES:

1. LAP SPLICES ABOVE ARE IN MILLIMETERS UNO.
2. YIELD STRENGTH OF REINFORCEMENT, fy, IS 400MPa (LAP SPLICE LENGTH IS IN MILLIMETERS).
3. CONCRETE IS NORMAL WEIGHT (2400Kg/m).
4. TOP BAR INDICATES HORIZONTAL REINFORCEMENT WHICH IS PLACED ABOVE 300mm OR MORE OF FRESH CONCRETE.
5. SEE COLUMN SCHEDULE FOR COLUMN AND SHEAR WALL VERTICAL LAP SPLICE.
6. STRAIGHT DEVELOPMENT LENGTH OF AN UNLAPPED BAR IS EQUAL TO VALUE FROM TABLE DIVIDED BY 1.3.
7. CATEGORY FOR BARS SPACED LESS THAN 4d, OR ON CENTER CORRESPONDS TO CATEGORY 1 IN THE CRSI HANDBOOK WHEREAS FOR BARS SPACED 4d, OR MORE ON CENTER CORRESPOND TO CRSI CATEGORY 5.

STEEL MATERIALS SCHEDULE		
STRUCTURAL ELEMENT	FY YIELD STRENGTH (MPa)	REMARKS
BEAMS & GIRDERS	250	ASTM A36M ASTM A6M
COLUMNS	240	ASTM A53–95 GRADE B ASTM A6M
MISC BRACING	250	ASTM A572M ASTM A6M
CONNECTIONS, PLATES, & ALL OTHERS	250	ASTM A36M ASTM A6M
ANCHOR BOLTS	–	ASTM A36M or A307M ASTM A6M
PIPES	240	ASTM A53–95 GRADE B ASTM A6M
TUBING	345	ASTM A500–93 GRADE C ASTM A6M
HIGH STRENGTH BOLTS	–	ASTM A325M–N
WELDING ELECTRODES	–	AWS D1.1–90 E70xx

CONCRETE COVER SCHEDULE

MINIMUM CONCRETE COVER PROTECTION FOR REINFORCEMENT BARS SHALL BE AS FOLLOWS: (SEE ACI 318–89M, SECTION 7.7 FOR CONDITIONS NOT NOTED). DIMENSIONS FOR BAR PLACEMENT GIVEN IN SECTIONS AND DETAILS SHALL SUPERSEDE MINIMUM COVER REQUIREMENTS GIVEN HERE. DIMENSIONS ARE IN mm.

FOOTINGS (EARTH FORMED)		70
COLUMNS / PIERS		40
GRADE BEAMS OR SLAB TURNED DOWN EDGES:		
TOP		40
BOTTOM (EARTH FORMED)		70
SIDES (EARTH FORMED)		70
SIDES (BOARD FORMED)	#16 BAR & SMALLER	40
	#19 THRU #36 BAR	50
		40
SLABS–ON–GRADE (NO EXPOSURE TO WEATHER) FROM TOP		20
SLABS–ON–GRADE (EXPOSURE TO WEATHER) FROM TOP		40
UTILITY TUNNEL WALLS, RETAINING WALLS AND SHEAR WALLS, (NO SURFACES SHALL BE EARTH FORMED) EARTH SIDE AND FRONT SIDE (EXPOSED TO WEATHER):		
#16 BAR AND SMALLER		40
#19 THRU #36 BAR		50

PROVIDE STANDARD BAR CHAIRS AND SPACERS AS REQUIRED TO MAINTAIN CONCRETE PROTECTION SPECIFIED.

SPREAD FOOTING AND PIER SCHEDULE

MARK	FOOTING SIZE			FOOTING REINFORCING	PIER				REMARKS
	LENGTH	WIDTH	THICKNESS		SIZE	T/PIER	VERT. BARS	TIES	
F2	2500	2500	300	7–#16 E.W., T & B	450	0.0	8–#19	2 SETS #10 @ 125	HAIRPINS REQ'D. SEE DETAILS

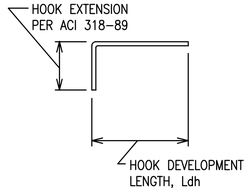
NOTES:

1. DIMENSIONS NOTED ARE MILLIMETERS (mm) U.N.O.
2. T/PIER EL GIVEN IN REFERENCE TO 0.0 mm DATUM OR FINISH FLOOR EL/SLAB EL, DISTANCE ABOVE OR BELOW INDICATED AS NEGATIVE OR POSITIVE.
3. PIER SIZE INDICATED IS SQUARE (DIMENSION SAME IN BOTH DIRECTIONS) U.N.O.

CONCRETE MATERIALS SCHEDULE	
STRUCTURAL ELEMENT	f'c CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS (MPa)
SLAB-ON-GRADE/TURN-DOWN SLABS	27.5
ROOF AND FLOOR SLABS	27.5
ALL FOOTINGS (U.N.O.)	20
MISC. CURBS, WALLS AND PADS UNO	27.5
CAST-IN-PLACE LINTEL	20
CONCRETE FRAMING - BEAMS AND COLUMNS	27.5

NOTES:
1. ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE. (2400 Kg/m^3 UNO)

STANDARD HOOKS IN TENSION PER (ACI 318–89)		
HOOK DEVELOPMENT LENGTH Ldh (mm)		
BAR SIZE	f'c 20 MPa	f'c 27.5 MPa
#10	230	180
#13	280	250
#16	360	300
#19	430	380
#22	480	430
#25	560	480
#29	640	560
#32	710	610
#36	790	690



NOTES:

1. CONCRETE IS NORMAL WEIGHT CONCRETE.
2. BAR YIELD STRENGTH, fy = 400 MPa
3. SIDE COVER REQUIREMENTS OF ACI SECT. 12.5.3.2 ARE ASSUMED TO NOT BE MET.
4. TIE OR STIRRUP REQUIREMENTS OF ACI SECT. 12.5.3.2 ARE ASSUMED TO NOT BE MET.
5. REDUCTION FOR EXCESS REINFORCEMENT IS NOT TAKEN.
6. HOOK DEVELOPMENT LENGTH IS VALID FOR 180^ HOOKS ALSO.
7. FOR 35 MPa CONCRETE, USE VALUES FOR 30 MPa

US Army Corps of Engineers
Afghanistan Engineer District

APP.	DATE	DESCRIPTION	SYMBOL

DESIGNED BY: BAKER
DWN BY: RCG
CHK BY: RTD
DATE: 09-30-09
SUBMITTED BY: BAKER
FILE NO.: ANPSDS-003XXX

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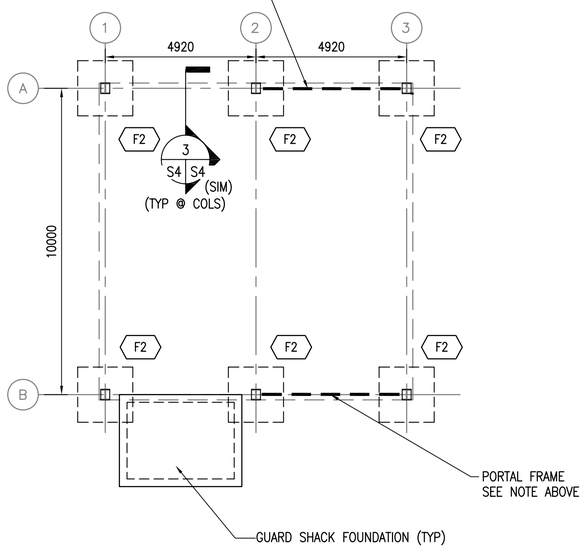
AFGHAN NATIONAL POLICE
STANDARD DESIGN
ENTRY CONTROL POINT CANOPY

STRUCTURAL MATERIAL SCHEDULES

SHEET REFERENCE NUMBER:
S3

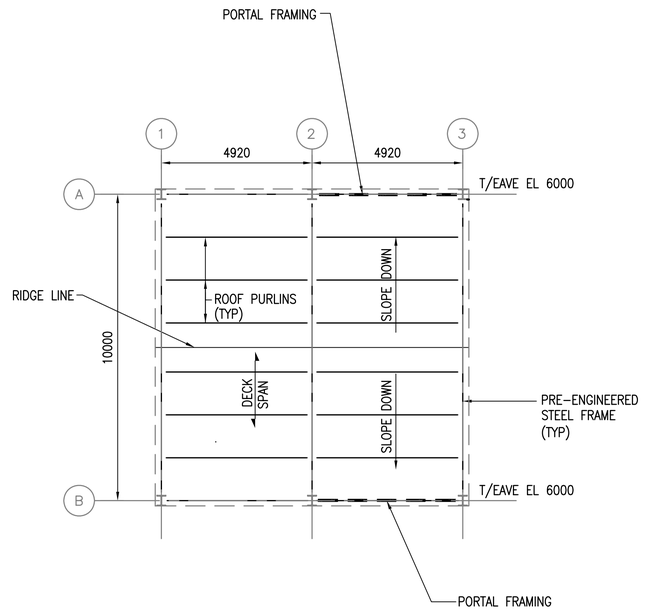
100% SUBMISSION

PORTAL FRAMING – DESIGNATED LOCATION FOR PRE-ENGINEERED PORTAL FRAMING. PORTAL FRAMING COLUMNS SHALL BE COMBINED WITH THE RIGID FRAME COLUMNS IN THESE 4 LOCATIONS, REINFORCED OR UPSIZED AS REQUIRED TO HANDLE THE PORTAL FRAME LATERAL LOADS. PROVIDE COMBINED BASE PLATE AS REQ'D TO FIT ONTO TYPICAL F2 FOOTING PIER.



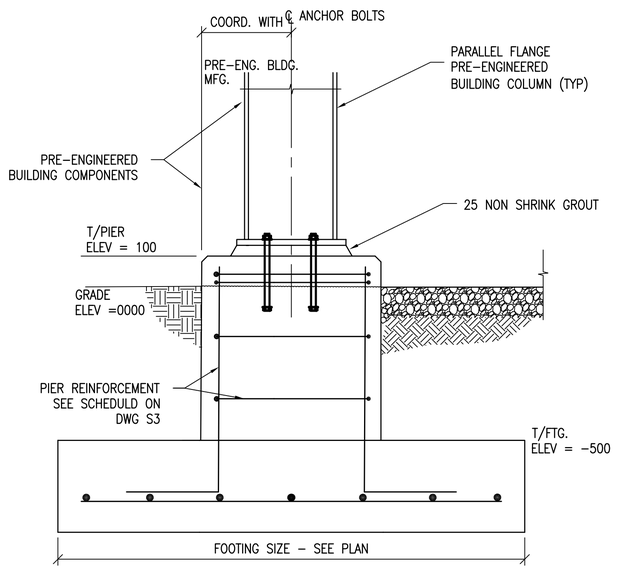
1 S4 S4 ENTRY CONTROL POINT FOUNDATION / SLAB PLAN

SCALE: 1:100



2 S4 S4 ENTRY CONTROL POINT ROOF FRAMING PLAN

SCALE: 1:100



3 S4 S4 SECTION

SCALE: 1:10

NOTES :

1. FINISH GRADE ELEVATION SHALL BE (DATUM 0.0) ALL PLUS OR MINUS DIMENSIONS INDICATED ON PLAN OR REFERRED TO IN NOTES RELATE TO FINISH GRADE ELEVATION.
2. TOP OF EXTERIOR FOOTINGS SHALL BE –500 UNLESS OTHERWISE INDICATED.
3. SPREAD FOOTINGS INDICATED THUS (XXXX) ON PLAN. REFER TO SPREAD FOOTING SCHEDULE ON DRAWING S3.
4. REFER TO DRAWINGS S1 TO S3 FOR STRUCTURAL NOTES, BASIS OF DESIGN, SYMBOLS AND ABBREVIATIONS.
5. PRIOR TO CONSTRUCTION OF FOUNDATIONS, THE CONTRACTOR SHALL COORDINATE THE LOCATIONS OF ALL FOOTINGS, PIERS, AND TURN DOWN SLAB EDGES WITH THE PRE-ENGINEERED BUILDING DRAWINGS AND REVISE AS NECESSARY.
6. PRE-ENGINEERED COLUMN BASES SHALL BE DESIGNED AS PINNED ONLY.
7. LOCATIONS OF LATERAL RESISTING SYSTEMS (PORTAL FRAMES, X-BRACING) HAS BEEN SHOWN IN PLAN AND SHALL NOT BE MODIFIED UNLESS APPROVED BY THE ENGINEER OF RECORD.
8. ALL PIERS FOR PRE-ENGINEERED BUILDING COLUMNS SHALL HAVE HAIR-PIN TIES AS INDICATED IN THE DETAILS.
9. ANCHOR BOLTS FOR PRE-ENGINEERED BUILDING COLUMNS SHALL BE (4)-20 DIA A307M ANCHOR BOLTS WITH 300 EMBED MIN.
10. TOP OF PIER ELEVATION SET AT +100. COORDINATE BOTT/BASE PLATE AND GROUT REQUIREMENTS WITH PRE-ENGINEERED BUILDING MANUFACTURER.
11. THE PRE-ENGINEERED BUILDING MANUFACTURER SHALL COORDINATE ALL LOADING REQUIREMENTS INDICATED ON THE DRAWINGS AND SPECIFICATIONS WITH ARCH., STRUCT., MECH., AND ELEC.
12. THE PRE-ENGINEERED BUILDING MANUFACTURER SHALL COORDINATE ALL HANGING LOADING FROM EQUIPMENT OR ARCHITECTURAL ELEMENTS AND INCLUDE IN THE DESIGN OF THE FRAMING.
13. SEE SPECIFICATION FOR LATERAL DRIFT REQUIREMENTS.
14. METAL ROOF DECKING DESIGN AND PROVIDED BY PRE-ENGINEERED BUILDING MANUFACTURER.

0 .20 .40 .60 .80 1.00
1:10

1 0 1 2 3 4 5 6 7 8 9
1:100

US Army Corps of Engineers
Afghanistan Engineer District

SYMBOL	DESCRIPTION	DATE	APP'D

DESIGNED BY: MMS	DATE: 09-30-09
DWN BY: TML	SUBMITTED BY: BAKER
CHK BY: RTD	FILE NO.: ANPSDS-104XXX

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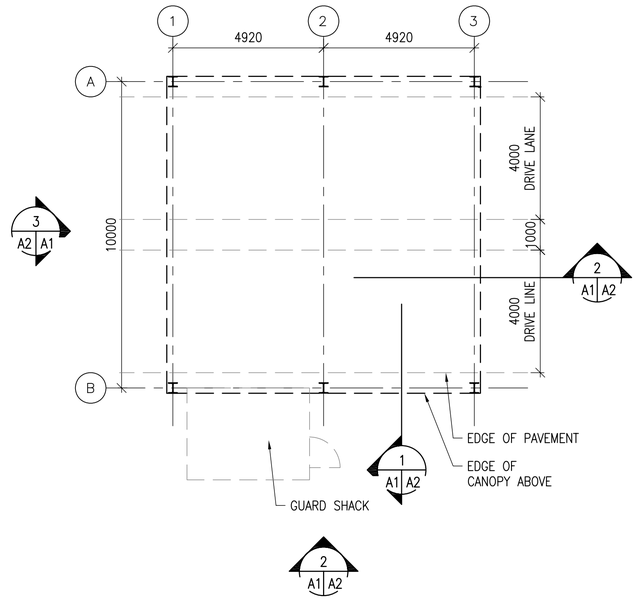
STANDARD DESIGN
ENTRY CONTROL POINT CANOPY

FOUNDATION / SLAB / ROOF FRAMING PLAN

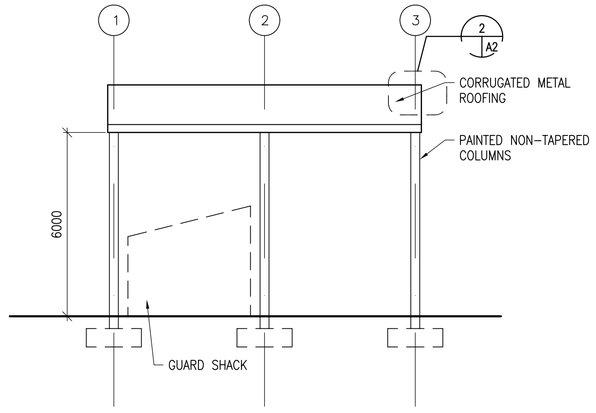
SHEET REFERENCE NUMBER:
S4

100% SUBMISSION



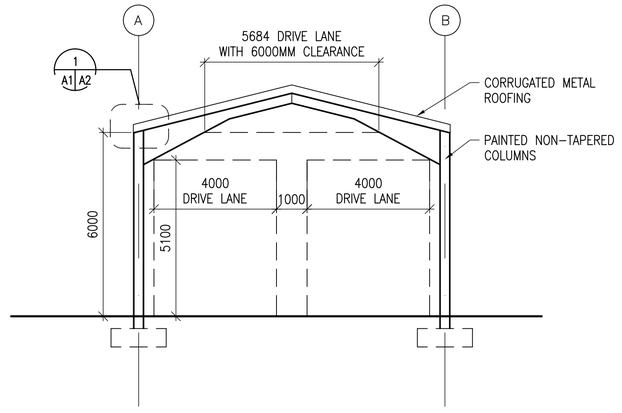
1 A1 A1 CANOPY PLAN

SCALE: 1:100



2 A1 A1 CANOPY ELEVATION

SCALE: 1:100



3 A1 A1 CANOPY ELEVATION

SCALE: 1:100

CANOPY NOTES:

1. STRUCTURE SHALL BE PRE-ENGINEERED METAL BUILDING SYSTEM

2. SURFACES TO BE PAINTED SHALL BE CLEAN AND FREE OF FOREIGN MATTER BEFORE APPLICATION OF PAINT. CLEANING SHALL BE SCHEDULED SO THAT DUST AND OTHER CONTAMINANTS WILL NOT FALL ON WET, NEWLY PAINTED SURFACES.

3. PAINTS CONTAINING LEAD IN EXCESS OF 0.06 PERCENT BY WEIGHT OF THE TOTAL NONVOLATILE CONTENT SHALL NOT BE USED.

4. MERCURIAL FUNGICIDES SHALL NOT BE USED IN OIL-BASE PAINT.

5. REMOVE LOOSE DIRT AND CLEAN SURFACES BEFORE PAINTING. APPLY PAINT TO INTERIOR STRUCTURAL RIGID FRAMINGS AND CEILINGS AND TEST FOR ADHESION. PRIMER COAT FOR MASONRY. INITIAL FIRST COAT WITH AN ACRYLIC LATEX PAINT FOR EXTERIOR SURFACES AND A SECOND COAT WITH A WATER REPELLANT ACRYLIC LATEX PAINT.

1 0 1 2 3 4 5 6 7 8 9
1:100

US Army Corps of Engineers
Afghanistan Engineer District

SYMBOL	DESCRIPTION	DATE	APP'D

DESIGNED BY: BAKER	DATE: 09-30-09		
DWN BY: JDS	SUBMITTED BY: BAKER		
CHK BY: RTD	FILE NO.: ANPSDA-101XXX		

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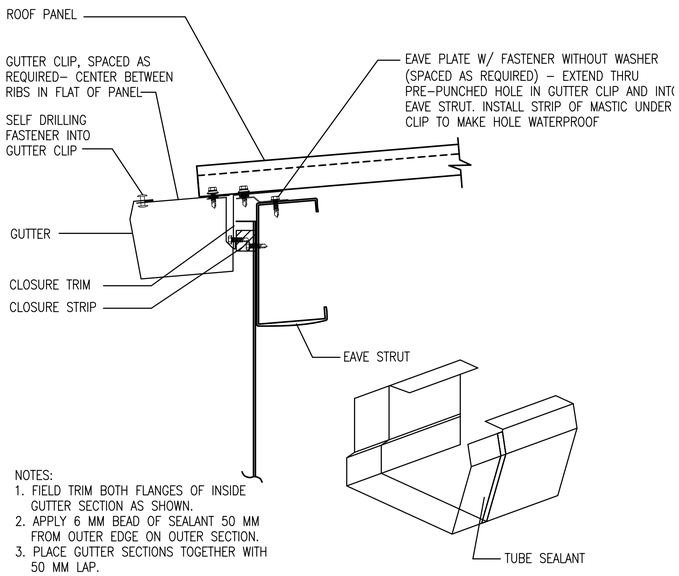
AFGHAN NATIONAL POLICE
STANDARD DESIGN
ENTRY CONTROL POINT CANOPY

CANOPY PLAN, ELEVATIONS, AND SECTIONS

SHEET REFERENCE NUMBER:
A1

100% SUBMISSION

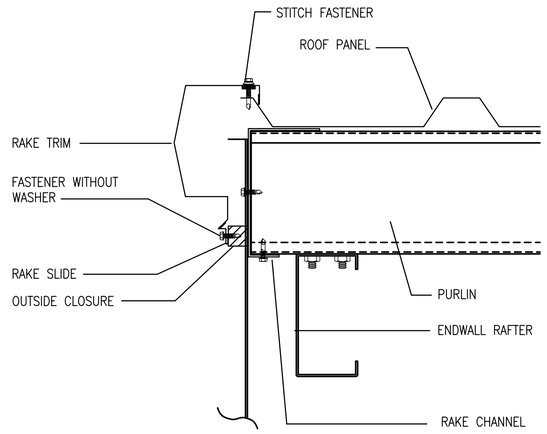


NOTES:
1. FIELD TRIM BOTH FLANGES OF INSIDE GUTTER SECTION AS SHOWN.
2. APPLY 6 MM BEAD OF SEALANT 50 MM FROM OUTER EDGE ON OUTER SECTION.
3. PLACE GUTTER SECTIONS TOGETHER WITH 50 MM LAP.
4. SECURE GUTTER SECTIONS TOGETHER WITH POP RIVETS.

GUTTER SPLICE ASSEMBLY

1 A1 A2 EAVE DETAIL WITH GUTTER

SCALE: NONE



2 A1 A2 RAKE TRIM DETAIL

SCALE: NONE

1:100

US Army Corps of Engineers
Afghanistan Engineer District

SYMBOL	DESCRIPTION	DATE	APP'D

DESIGNED BY: BAKER	DATE: 09-30-09
DWN BY: JDS	SUBMITTED BY: BAKER
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AFGHAN NATIONAL POLICE
STANDARD DESIGN
ENTRY CONTROL POINT CANOPY

CANOPY PLAN, ELEVATIONS, AND SECTIONS

SHEET REFERENCE NUMBER:
A2

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